

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## Office of the General Counsel

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July 6, 2018

## **VIA EMAIL**

Hon. Kathleen H. Burgess, Secretary of the Siting Board  
New York State Board on Electric Generation Siting and the Environment  
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Re: Case No: 17-F-0619 – Application of Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene 3 LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the Public Service Law for Construction of a Solar Electric Generating Facility; Preliminary Scoping Statement Comments

Dear Secretary Burgess and Mr. Laniado:

Pursuant to 16 NYCRR § 1000.5(g), the New York State Department of Environmental Conservation (“NYSDEC”) submits the following comments on the Preliminary Scoping Statement (“PSS”) dated May 29, 2018, redacted and refiled on June 14, 2018, by Hecate Energy Greene 1 LLC, Hecate Energy Greene 2 LLC, and Hecate Energy Greene 3 LLC (the “Co-Applicants”) and deemed compliant on June 1, 2018. As stated in the PSS, the Co-Applicants propose a photovoltaic solar electric generating project with a nameplate capacity of up to 50 megawatts located within the Town and Village of Coxsackie, Greene County, New York (“Facility” or “Project”). NYSDEC is providing detailed comments to ensure that the Article 10 application (“Application”) will comply with state law and regulations and provide sufficient information for NYSDEC and other parties to thoroughly review the Project.

Thank you for the opportunity to comment on the PSS. If you have any questions please contact me at (518) 402-9191 or [kara.paulsen@dec.ny.gov](mailto:kara.paulsen@dec.ny.gov) or Kristy Primeau, the NYSDEC Project Manager, at (518) 402-9157 or [kristy.primeau@dec.ny.gov](mailto:kristy.primeau@dec.ny.gov).

Sincerely,



Kara E. Paulsen, Esq.

EC: Active Parties  
NYSDEC Review Team



Department of  
Environmental  
Conservation

**Case No. 17-F-0619**  
**Comments of the Staff of the New York State Department of Environmental Conservation**  
**on the Preliminary Scoping Statement**

**Acronyms**

BMP – Best Management Practices  
Corps – United States Army Corps of Engineers  
ECL – Environmental Conservation Law  
GIS - Geographic Information System  
ITP – Incidental Take Permit  
MW – megawatt  
NHP – New York National Heritage Program  
NLCD - National Land Cover Data  
NWI - National Wetland Inventory  
NYCRR – New York Code of Rules and Regulations  
NYS – New York State  
NYSDEC – New York State Department of Environmental Conservation  
NYSDOS – New York State Department of State  
NYS DPS – New York State Department of Public Service  
PSS - Preliminary Scoping Statement  
SGCN – New York State Species of Greatest Conservation Need  
SSC – New York State Species of Special Concern  
T&E species – threatened and endangered species  
ULI - Unusual Local Importance  
US – United States  
USFWS – United States Fish and Wildlife Service  
USGS – United States Geological Service

**General Comment**

Shapefiles suitable for use in GIS software via ESRI's ArcGIS suite of software (e.g., ArcMap) containing all applicable Project and survey components as described in NYSDEC's Guidelines for Conducting Bird and Bat Studies at Commercial Wind Energy Projects (June 2016) should be submitted to NYSDEC as soon as possible. Shapefiles should depict the location of all Facility components including (separately): extent of current Facility site; panel array locations; new access and maintenance roads; existing roads that will be widened/alterd; electric collection and transmission lines (specified above ground or underground); security fence lines; laydown and storage area(s); substation(s); temporary and permanent meteorological tower(s), if applicable; any other temporary or permanent infrastructure constructed in support of the Facility; and all areas to be cleared around panels, access roads, electric lines, and all other Facility components. Additionally, shapefiles showing all wildlife and habitat survey locations as applicable and labeled by year, including (separately): breeding bird survey transects/points; winter raptor survey locations and driving routes; viewsheds for winter raptor observation points, indicating the area visible from each point; bat acoustic monitoring and/or mist net locations; all delineated wetland boundaries and adjacent areas; stream crossings; and any other survey information pertinent to the Facility should be provided to NYSDEC as soon as possible. The Co-Applicants should update shapefiles depicting preliminary Project component/layout and resubmit to NYSDEC as needed and in a timely manner during Project development and review. Draft reports of all wildlife, habitat, and wetland surveys shall be submitted to NYSDEC as soon as possible after they are prepared. These reports should include maps and shapefiles provided confidentially to NYSDEC depicting the location(s), observation date(s), species, and behavior(s) of all T&E and SSC individuals observed during pre-construction surveys and incidentally within and adjacent to the Facility.

## **Specific Comments**

### **3.0 Environmental Setting**

#### **3.4 Wildlife**

Table 3.4-1 should list the northern long-eared bat as state-threatened.

#### **3.5 Wetlands**

Field delineations of wetlands compliant with 16 NYCRR § 1001.22(i) should be included in the Application, and will be used to make a final jurisdictional determination of the potential impacts of the Project on regulated wetlands and 100-foot adjacent areas.

#### **3.8 Water Resources and Aquatic Ecology**

This section states “The Facility’s proposed vegetative cover will provide improved stormwater runoff quality within the Sleepy Hollow Lake watershed.” The Co-Applicants should provide further information to support this statement.

#### **3.9 Visual**

The first sentence of this section says that the “Facility Area is located approximately 0.6 miles west of the Hudson River.” The second sentence of the second paragraph states this distance as 0.5 miles. The 0.6-mile distance also appears on page 131. Please clarify and revise this measurement for consistency.

### **4.0 Environmental Analysis**

#### **4.4 Land Use-Exhibit 4**

##### **4.4.4 Proposed Avoidance, Minimization, and Mitigation Measures**

This section lists a potential avoidance and minimization measure of “conserving land to mitigate impacts to wildlife species.” While this may be an acceptable mitigation action, first avoiding then minimizing impacts to wildlife through not placing Project components in areas of sensitive species habitat, and altering the Project layout to minimize impacts to sensitive habitat, should also be included in this section.

#### **4.9 Reasonable and Available Alternatives-Exhibit 9**

##### **4.9.2 Reasonable Alternatives to Proposed Facility at the Primary Proposed Location**

This section should indicate that the Project layout may be adjusted to avoid impacts to listed T&E species, sensitive habitats or wetlands based on the results of field studies that will be conducted or reviewed by resource agencies.

#### **4.11 Preliminary Design Drawings-Exhibit 11**

- I. Design drawings should demonstrate that the Project has been designed to co-locate Project components to the maximum extent practicable (e.g., collection lines and access roads), and minimize fragmentation of grassland and other sensitive habitat areas.
- II. Wetland and stream impacts should be shown on the site plan together with all Project elements that involve any potential ground disturbance, grade changes, change to runoff patterns, and the construction of any facility components.
- III. Wetland impacts should also be presented on a separate set of site plan drawings at 1”:50’ scale, minimally depicting wetland boundaries, 100-foot adjacent areas, permanent and temporary structures, stream crossings, roads, power interconnects, the limits of disturbance, and proposed grading.
- IV. Any culverts that are required for the Project should be designed for a 100-year storm event, designed to incorporate specifications such as those described in NYSDEC’s Stream Crossing Guidelines, available at: <http://www.dec.ny.gov/permits/49060.html>

## **4.22 Terrestrial Ecology and Wetlands – Exhibit 22**

### 4.22.1 Overview

#### *4.22.1.2 Mammals*

This section does not include all mammal species that may occur on site, and erroneously includes a couple of bird species.

#### *4.22.1.4 State and Federal Endangered or Threatened Species*

This section states that short-eared owl and northern harrier may occur in the Facility Area, however, these species are well documented as occurring in the Facility Area. In addition, state-threatened king rail has been documented within the Facility Area during the breeding season.

#### *4.22.1.5 Wetlands*

This sections states that “49 wetlands were field delineated within the Facility Area during three separate field efforts in November and December 2016, September 2017, and May 2018.” Some of these dates are outside of the accepted growing season for conducting wetland delineations. “Table 4.22-3: Mapped NYSDEC Wetlands within the Facility Area and 500-foot Buffer” is missing NYSDEC mapped linear wetland HN-117. This same wetland is identified as W-103 in “Table 4.22-4: Preliminary Delineated Wetlands within the Facility Area.”

### 4.22.2 Proposed Studies

#### *4.22.2.3 Avian Resources*

In addition to the sources of information listed in this section, NYSDEC recommends the Co-Applicants reach out to local birding and conservation groups for any information that is available on recent and historical occurrences of wildlife in the area, and continue coordination with NYSDEC regarding information on breeding grassland bird and wintering raptor use of the Project area.

#### *4.22.2.4 State and Federal Endangered or Threatened Species*

This section erroneously identifies 6 NYCRR Part 124 as pertaining to incidental taking of state listed T&E species. This should be corrected to 6 NYCRR Part 182.

#### *4.22.2.5 Wetlands*

If any tree removal will occur within or near a wetland or stream, such areas should be specifically noted on maps showing wetland impacts and areas of ground disturbance. All crossings, including those perpendicular to flow, should be identified on plans, clearly showing that flow will not be blocked, restricted or altered.

## **Other Comments Regarding Exhibit 22**

### Section 22(a)

The Application should contain maps, information on, and a description of the plant communities within the Facility, electric interconnection lines, and adjacent properties. Maps, shapefiles and descriptions should show approximate locations and extent of identified plant communities, including areas of invasive species concentrations, overlaid with areas of proposed disturbance, and be based on results of observations and field verification during on-site surveys, roadside surveys from adjacent parcels, and review of recent aerial imagery and NLCD information. A list of all plant species observed during on-site field investigations and incidentally while in the Facility should be provided, including the date(s) each species was observed.

### Section 22(b)

The Application should contain results of pre-construction surveys, including the location(s) of areas of invasive species within the Facility, and maps and shapefiles of any concentration areas that

may contain Project components. This information will assist in appropriate siting of Project components in areas that will not facilitate the spread of invasive species.

An Invasive Species Management Plan should address measures to prevent the introduction of and control the spread of all the species listed in 6 NYCRR Part 575, including all the terrestrial and aquatic species listed at [http://www.dec.ny.gov/docs/lands\\_forests\\_pdf/islist.pdf](http://www.dec.ny.gov/docs/lands_forests_pdf/islist.pdf). Additional species not included on this list (i.e., reed canary grass and wild parsnip) may also warrant specific management and control measures, depending on current populations of such species within and nearby the Facility. Specifically, the Invasive Species Management Plan should apply to all prohibited and regulated invasive species and include the following:

- I. A summary of the survey methods to be used to identify and mark existing non-native invasive species within the Facility site (i.e. baseline survey), including the transmission line corridor (if applicable) and field verification of the location(s) of invasive species conducted during the growing season immediately prior (within at least six months) of the start of vegetation or ground disturbance activities;
- II. An action plan for pre-construction management of non-native invasive species, including threshold for action and specific methods to be used to ensure that imported fill and fill leaving the Facility Site will be free of non-native invasive species material, seeds, and parts to the extent practicable;
- III. Specification on how fill materials to be placed within the Facility site will be free of non-native invasive species material, seeds, and parts, or only used within areas already containing those specific non-native invasive plant and invertebrate species infestation;
- IV. Detailed description of specific Facility site grading, erosion and sediment control methods that will be used to prevent the introduction, spread, or proliferation of all non-native invasive species to the extent practicable;
- V. Details of procedures for preventing the spread of invasive invertebrates and diseases, and a discussion of how the Co-Applicants will comply with the state quarantine and protective zones, where applicable;
- VI. Implementation plans for ensuring that equipment and personnel arrive at and depart from the Facility site clean and free of all non-native invasive species material, seeds, and parts. The protocol for inspection of equipment arriving at the Facility Site should be provided in the Application;
- VII. A detailed description of cleaning procedures for removing non-native invasive species material, seeds, and parts from equipment and personnel, and properly disposing of materials known to be or suspected of being infested;
- VIII. Detailed description of the BMPs or procedures that will be implemented, and the education measures that will be used to educate workers;
- IX. Detailed description of a minimum of 5-year post-construction monitoring and corrective action plan, to achieve the goal of no new invasive species in the Facility area and no new locations of existing invasive species in the Facility area, and survey measures and procedures for revising the Invasive Species Management Plan in the event that the goals of the initial plan are not met within a specified timeframe;
- X. Anticipated methods and procedures used to treat non-native invasive species that have been introduced or spread as a result of the construction, operation or maintenance of the Facility (based on comparisons against the baseline survey); and
- XI. Landscape re-vegetation plans, including specification of native seed mix to be used, as appropriate.

#### Section 22(c)

The Application should demonstrate how the Project was designed to avoid and minimize impacts to vegetation by co-locating linear Project components such as access roads and interconnection lines, and constructing all panel arrays, buildings, storage areas, and other structures in areas already developed or disturbed, to the maximum extent practicable. Post-construction vegetative restoration

should include reseeding disturbed areas with appropriate native seed mix, planting native woody species, if necessary, and implementing appropriate mowing, cutting, or other vegetation management regimes to recreate or enhance wildlife habitat.

Section 22(f)

The Application should include a narrative analysis and associated mapping to explain and illustrate potential and expected construction and operational impacts to vegetative cover types, wildlife habitats (including a discussion of impacts from habitat fragmentation), wildlife concentration areas, travel corridors, if identified, and terrestrial and aquatic organisms.

The Application should discuss all direct and indirect construction-related impacts that may occur to wildlife and wildlife habitat, including but not limited to incidental injury and mortality due to construction activity and vehicular movement, habitat disturbance and loss associated with vegetation clearing and earth-moving activities, and the displacement of wildlife from preferred habitat.

The Application should discuss all direct and indirect operational and maintenance impacts including, but not limited to, functional loss and degradation of habitat, forest and grassland fragmentation, and wildlife displacement. To the extent any documented wildlife travel corridors or concentration areas are identified within or in the vicinity of the Facility Site, direct and indirect impacts to such corridors and concentration areas should be addressed.

The Application should include a discussion of potential short- and long-term impacts to plants, animals, and habitats that may result from the application of biocides, if any, during site preparation, construction, operations, or maintenance of the Facility.

A summary impact table should be included that clearly quantifies anticipated temporary and permanent impacts associated with all Facility components in relation to wildlife habitats, identified concentration areas or travel corridors, and vegetation cover types, particularly grasslands, interior forests and young successional forests, if affected.

The Application should discuss the Facility's location in any state, county, or locally-identified concentration areas or migration corridors, as appropriate, and include a discussion of the potential cumulative impacts of the Facility on wildlife species and the habitats that support them with respect to the other photovoltaic solar energy projects or panels that are currently operating and proposed to be constructed at other sites nearby the Facility and in NYS.

Avian and bat occupancy and usage of the Facility site should be compared with other proposed and existing solar energy projects located nearby the Facility and in NYS. Analyses should be based on a discussion and comparative analysis of the extent, methodology, and results of the pre-construction wildlife studies conducted for the Facility, and studies from other solar energy projects for which data are publicly available, as well as any additional information provided by NYSDEC and USFWS.

A cumulative impact analysis should be done to evaluate the actual and expected impacts from the construction, operation and maintenance of the Facility as they relate to other proposed and operating solar energy projects nearby the Facility and in NYS. This analysis should minimally include a discussion and/or calculations describing and showing:

- I. Examination of data on currently installed utility-scale solar energy capacity in NYS, as well as projected increase in installed solar energy capacity for the life of the Facility;
- II. Estimated take of federally listed or protected and state-listed species at the Facility, based on post-construction studies done in the state and northeast, data provided by state and federal agencies, and any other available relevant information;
- III. Acres of each habitat type lost directly through installation of panels and other Project components, clearing, and cover type conversion;

- IV. Acres of each habitat type lost indirectly due to functional loss/degradation of habitat (for purposes of forest fragmentation analyses, it is assumed that indirect effects will extend up to 300 feet beyond the limits of disturbance); and
- V. Cumulative impacts of forest and grassland habitat fragmentation, particularly potential impacts on listed bird species, nearby the Facility.

The Application should contain a literature review and impact analysis evaluating how the construction, operation and maintenance of the Facility will affect wintering and breeding grassland bird species, including an assessment of the potential population-level effects of habitat loss is likely to have on grassland bird species at a regional scale, should also be included.

The Application should include information regarding the presence of federally and state-listed T&E species, SSC, and SGCN, and a discussion of the Facility's potential to impact such species or their habitats. Analysis of documented T&E species, SSC, and SGCN should be based on database records obtained from the NHP, other known records documented by NYSDEC, USFWS, and observations made during on-site wildlife and habitat, ecological, and wetland surveys. A summary impact table containing information on all species within these categories should be compiled and included in the Application.

If it is determined by the Co-Applicants, NYSDEC, or USFWS that the construction or operation of the Facility is likely to result in a take of a listed species, including the modification of habitat on which a listed species depends, the Co-Applicants should submit with the Application an avoidance, minimization and mitigation plan that demonstrates a net conservation benefit to the affected species as defined pursuant to 6 NYCRR Part 182, along with the informational requirements of an ITP pursuant to 6 NYCRR Part 182, including proposed actions to avoid all impacts to listed species. The Application should include a discussion and analysis of information collected as part of pre-construction monitoring surveys at the Facility, surveys at existing photovoltaic solar energy projects in the northeast (if available), and information provided by state and federal agencies. If impacts are unavoidable, the Application should demonstrate that they are unavoidable and provide a clear and reasoned explanation as to why complete avoidance of impacts to each affected species is not practicable, how the proposed minimization actions will minimize impacts to the maximum extent practicable, and proposed mitigation and adaptive management actions where impacts cannot be avoided or secondly minimized. The minimization actions and mitigation measures to be implemented should: be developed in consultation with NYSDEC and USFWS (if federally-listed species may be impacted); result in a net conservation benefit to the target species; and require thorough post-construction monitoring that adequately measures the Facility's impact on the target species.

A post-construction monitoring plan should be developed on a site-specific basis through discussions between NYSDEC, the Co-Applicants, and USFWS (if federally-listed species may be impacted), and at a minimum specify the following: the expected and allowed level of take of each target species; survey monitoring methods, effort, duration, data reporting and compliance documentation; construction parameters; proposed adaptive management responses, if applicable, and; mitigation measures sufficient to ensure the Co-Applicants comply with the substantive requirements of 6 NYCRR Part 182. A final work plan should be approved by NYSDEC and NYSDPS and be in place prior to the start of Project operation.

#### Section 22(g)

The Application should include a detailed description of the impact avoidance and minimization efforts used in siting and developing the Facility, including project design, construction controls, and operational/maintenance measures that can reasonably be implemented to avoid, minimize and mitigate for impacts to wildlife and wildlife habitat. This should include a discussion of the impacts associated with habitat loss, fragmentation, and displacement. Any impacts that cannot be avoided should then be minimized to the maximum extent practicable. Appropriate and timely mitigation for unavoidable impacts

to listed T&E species is considered only after all possible avoidance and minimization efforts have been undertaken, and must result in a net conservation benefit to the target species.

Section 22(i)

The Application should include maps, at a scale of 1":50' showing all Facility components, including proposed grade changes and the limits of ground disturbance and vegetative clearing, field-delineated wetlands and 100-foot adjacent areas. Wetland delineations should include vernal pools, and areas of ULI. Information should be provided indicating which delineated wetlands are likely state-regulated, including those that are part of wetland complexes that meet state-criteria for jurisdiction (e.g., 12.4 acres or larger, is of ULI, and/or support listed species), but are not currently mapped. All state-regulated wetlands should be identified by NYSDEC's alphanumeric code in addition to the code assigned by the Co-Applicants during delineation. Jurisdictional determination is required to fully and accurately assess potential impacts to wetlands and adjacent areas.

Section 22(l)

The Application should include a description of the hydrologic connectivity of all wetlands within the Facility, including a summary of those wetlands anticipated to fall under NYSDEC jurisdiction (under Article 24 of the ECL) and Corps jurisdiction (under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act). Assessments of potential state wetlands jurisdiction should include both "mapped" and "unmapped wetlands" that meet NYSDEC's 12.4-acre size threshold (including any wetlands separated by less than 50 meters which function as a unit in providing wetland benefits, pursuant to 6 NYCRR Part 664, or otherwise meet state criteria for jurisdiction (e.g., wetlands or vernal pools determined to be of ULI pursuant to 6 NYCRR § 664.7(c)). A summary should be provided of off-site wetlands adjacent to the Facility and any disturbed areas that may be hydrologically or ecologically influenced or impacted by development of the Facility, including Significant Coastal Fish and Wildlife Habitat Areas designated by NYSDOS, if any, and publicly owned lands, to determine their general characteristics and relationship, if any, to the delineated wetlands within the Facility. All information, including maps and shapefiles of delineated wetlands, should be provided to NYSDEC as soon as possible after delineations are completed, to allow for NYSDEC to determine the full extent of state wetland jurisdiction.

Section 22(m)

The Application should include an identification and quantification of temporary and permanent impacts to, and any permanent conversions of wetlands and state-regulated 100-foot adjacent areas based on the proposed footprint of all Facility components and associated impact assumptions. This assessment should also include a description of applicable permanent forest conversion, if any, which would occur as a result of the construction of the Facility. Impacts should be summarized and presented in a table that identifies and calculates the following: the type of impact, including but not limited to permanent or temporary fill and forest conversion, to each wetland and adjacent area; associated crossing methodology for each wetland, clearly discerning between federal and state wetlands, and adjacent area impacts; acreage of each type of impact to regulated wetlands and adjacent areas; associated delineation and NYSDEC wetland identification code; and the page number on preliminary design drawings depicting the resource. Impacts to wetlands should also be presented on a separate set of site plan drawings at 1":50' scale, showing wetland boundaries, permanent and temporary structures, stream crossings, roads, power interconnects, and the limits of disturbance.

Section 22(n)

The Application should demonstrate that all attempts have been made to avoid all impacts to wetlands, followed by minimization of unavoidable impacts, before mitigation is considered. Where impacts to wetlands are unavoidable, and have been minimized to the extent possible, the anticipated mitigation measures to be implemented to offset impacts to wetlands and state-regulated 100-foot adjacent areas should be discussed, including the use of reasonable alternative stream and wetland crossing methods.



The Co-Applicants should provide a conceptual mitigation plan for impacts to state-regulated wetlands and adjacent areas to NYSDEC at least 30 days before the submission of an Application. At a minimum, such a plan should meet the following provisions:

- I. The mitigation occurs on or in the immediate vicinity of the Facility (preferably elsewhere in the same wetland);
- II. The area affected by the proposed mitigation is regulated by the Freshwater Wetlands Act and 6 NYCRR Part 663 after mitigation measures are completed; and
- III. The mitigation provides substantially the same or more benefits than will be lost through the proposed activity.

#### Section 22(o)

The Application should include an identification of all federally and state-listed T&E species documented within or adjacent to the Facility site, along with a discussion of all potential direct and indirect impacts to these species, and the detailed contents of a Threatened and Endangered Species Avoidance, Minimization and Mitigation Plan, if needed. The results of pre-construction surveys and their associated impact analysis, as well as the estimated direct and indirect take of listed species and their habitats will provide a basis for ongoing consultation with NYSDEC, USFWS, and NYSDPS to determine an appropriate post-construction monitoring protocol.

### **4.23 Water Resources and Aquatic Ecology – Exhibit 23**

#### 4.23.1 Overview

##### *4.23.1.2 Surface Water*

Surface water maps should include perennial, intermittent and ephemeral streams, and wetlands, and be based on data from NYSDEC, ESRI, USGS, NWI, and stream data collected during on-site surveys of water resources. Wetland and stream delineations should identify all surface waters (ponds, vernal pools, and ephemeral, intermittent, and perennial streams). These data should also be provided in tabular format that can be cross referenced to the maps, and as shapefiles to NYSDEC.

#### 4.23.2 Extent of Quality of Information Required

##### *Section 4.23.2.1 Groundwater*

Spatial data on water wells is available for download via NYSDEC's website at: <https://www.dec.ny.gov/lands/33317.html> or may be accessed via the New York State GIS Clearinghouse at: <http://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1203>.

#### 4.23.3 Proposed Avoidance, Minimization, and Mitigation Measures

##### *4.23.3.2 Surface Water Avoidance, Minimization, and Mitigation Measures*

Every attempt should be made to avoid all impacts to surface waters, followed by a minimization of unavoidable impacts, before mitigation is considered. This should include an evaluation of reasonable avoidance measures and Facility layout alternatives that may entirely avoid impacts to regulated waterbodies. Where impacts are unavoidable and have been minimized to the greatest extent possible, mitigation measures should then be considered. Environmental impacts to be discussed and addressed should include thermal changes to waterbodies due to vegetative clearing, changes to in-stream structure and morphology, potential impacts to or taking of state-listed T&E, SSC and SGCN, and the effects of turbidity on nearby habitat.

All new stream crossings or upgrades of old crossings that may be necessary should be designed for a 100-year storm event. Culvert placement specifications should be described and enumerated, detail the expected flow calculations, and demonstrate culvert capacity with BMP considerations for culvert placement. The feasibility of using trenchless stream crossings should be assessed for all streams proposed to be crossed. Work prohibition dates should be established after the Application has identified which streams will be crossed. BMPs should be employed throughout the remainder of the year for all stream crossings.

**Appendix B – Updated Stakeholders List**

Please remove Stephen Allinger, NYSDEC from page 3 of 44.